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ABSTRACT

X-ray radiation is transmitted through and scattered from an object under inspection
5 to detect weapons, narcotics, explosives or other contraband. Relatively fast scintillators are
employed for faster X-ray detection efficiency and significantly improved image resolution.
Detector design is improved by the use of optically adiabatic scintillators. Switching
between photon-counting and photon integration modes reduces noise and significantly
increases overall image quality.